

PATENT ABSTRACTS OF JAPAN

(11)Publication number : 2003-073722

(43)Date of publication of application : 12.03.2003

(51)Int.Cl.

C21B 13/10

C22B 1/16

C22B 7/02

(21)Application number : 2002-007854

(71)Applicant : KOBE STEEL LTD

(22)Date of filing : 16.01.2002

(72)Inventor : ITO SHUZO
TSUSHIMO OSAMU

(30)Priority

Priority number : 2001183932 Priority date : 18.06.2001 Priority country : JP

(54) METHOD FOR MANUFACTURING GRANULAR METAL

(57)Abstract:

PROBLEM TO BE SOLVED: To establish a method for manufacturing a granular metal, which enhances cohesiveness of by-product slag regardless of the sort and quantity of gangue components, increases purity of the granular metal generated by heating and reduction, increases the size and equalizes the grade, and surely raises the yield for obtaining the final granular metal, when producing a high-purity granular metal by heating and reducing a raw material, which contains metallic oxide such as iron oxide and a carbon reducing agent such as coke, further heating it and melting the metal, and making the by-product slag cohere and separate.

SOLUTION: In a method for manufacturing the granular metal by reducing the metallic oxide in the raw material, through heating the raw material including a metallic oxide-containing material and a carbonaceous reducing agent, further heating the generated metals to melt them, and making the metals cohere while separating them from by-product slag components, this method is characterized by blending an agglomeration accelerator for the by-product slag into the raw material, to manufacture the granular metal superior in conveyance and handling properties having high metal purity and a large grain size, in a high yield and adequate productivity.